

WHAT IS CLAIMED IS:

1. A monitoring cable comprising:

a cable including plurality of individual wires each extending substantially an entire length of the cable; and

a plurality of electrodes each electrically connected to a respective one of the plurality of individual wires and positioned at various points along the cable.

2. A monitoring cable as recited in claim 1, wherein the plurality of individual wires each comprise single strands of wire.

3. A monitoring cable as recited in claim 1, wherein the plurality of individual wires each comprise multi-strand wires.

4. A monitoring cable as recited in claim 1, wherein the plurality of electrodes are integrally formed in the cable.

5. A monitoring cable as recited in claim 1, further comprising a plurality of resistive elements each electrically positioned between a respective electrode and its respective one of the plurality of wires.

6. A monitoring cable as recited in claim 1, wherein the cable is a substantially flat ribbon cable, the plurality of individual wires extending side by side substantially the entire length of the monitoring cable.
7. A monitoring cable as recited in claim 1, wherein the cable is substantially circular in cross section.
8. A monitoring cable as recited in claim 1, wherein the plurality of individual wires are electrically insulated from each other.
9. A monitoring cable as recited in claim 1, further comprising an interface connector provided at one end of the cable and including a plurality of contact portions each connected to a respective one of the plurality of individual wires, the interface connector provided for connecting the monitoring cable to monitoring equipment.
10. A monitoring cable comprising:
 - a cable including plurality of individual wires each extending substantially an entire length of the cable; and
 - a plurality of electrode connectors each electrically connected to a respective one of the plurality of wires and positioned at various points along the cable.

11. A monitoring cable as recited in claim 10, wherein the plurality of individual wires each comprise single strands of wire.

12. A monitoring cable as recited in claim 10, wherein the plurality of individual wires each comprise multi-strand wires.

13. A monitoring cable as recited in claim 10, wherein the plurality of electrode connectors are integrally formed in the cable.

14. A monitoring cable as recited in claim 10, further comprising a plurality of resistive elements each electrically positioned between a respective electrode connector and its respective one of the plurality of wires.

15. A monitoring cable as recited in claim 10, wherein the cable is a substantially flat ribbon cable, the plurality of wires extending side by side substantially the entire length of the monitoring cable.

16. A monitoring cable as recited in claim 10, wherein the cable is substantially circular in cross section.

17. A monitoring cable as recited in claim 10, wherein the plurality of individual wires are electrically insulated from each other.

18. A monitoring cable as recited in claim 10, further comprising an interface connector provided at one end of the cable and including a plurality of contact portions each connected to a respective one of the plurality of individual wires, the interface connector provided for connecting the monitoring cable to monitoring equipment.

19. A monitoring cable comprising:
a plurality of respective cables, each of the plurality of respective cables including plurality of individual wires each extending substantially an entire length of the respective cable;
and
a plurality of electrodes each electrically connected to a respective one of the plurality of individual wires and positioned at various points along each of the plurality of respective cables.

20. A monitoring cable comprising:
a plurality of respective cables, each of the plurality of respective cables including a plurality of individual wires each extending substantially an entire length of the respective cable;
and
a plurality of electrode connectors each electrically connected to a respective one of the

plurality of individual wires and positioned at various points along each of the plurality of respective cables.

21. A monitoring cable comprising:

a cable including plurality of individual wires, the cable being shaped substantially the same for substantially its entire length; and

a plurality of electrodes each electrically connected to a respective one of the plurality of individual wires and positioned at various points along the cable.

22. A monitoring cable as recited in claim 21, wherein the plurality of individual wires each comprise single strands of wire.

23. A monitoring cable as recited in claim 21, wherein the plurality of individual wires each comprise multi-strand wires.

24. A monitoring cable as recited in claim 21, wherein the plurality of electrodes are integrally formed in the cable.

25. A monitoring cable as recited in claim 21, further comprising a plurality of resistive elements each electrically positioned between a respective electrode and its respective one of the

plurality of wires.

26. A monitoring cable as recited in claim 21, wherein the cable is a substantially flat ribbon cable, the plurality of individual wires extending side by side.

27. A monitoring cable as recited in claim 21, wherein the cable is substantially circular in cross section.

28. A monitoring cable as recited in claim 21, wherein the plurality of individual wires are electrically insulated from each other.

29. A monitoring cable as recited in claim 21, further comprising an interface connector provided at one end of the cable and including a plurality of contact portions each connected to a respective one of the plurality of individual wires, the interface connector provided for connecting the monitoring cable to monitoring equipment.

30. A monitoring cable comprising:
a cable including a plurality of individual wires, the cable tapering from a first end to a distal end; and
a plurality of electrode connectors each electrically connected to a respective one of the

plurality of wires and positioned at various points along the cable.

31. A monitoring cable as recited in claim 30, wherein the plurality of individual wires each comprise single strands of wire.

32. A monitoring cable as recited in claim 30, wherein the plurality of individual wires each comprise multi-strand wires.

33. A monitoring cable as recited in claim 30, wherein the plurality of electrode connectors are integrally formed in the cable.

34. A monitoring cable as recited in claim 30, further comprising a plurality of resistive elements each electrically positioned between a respective electrode connector and its respective one of the plurality of wires.

35. A monitoring cable as recited in claim 30, wherein the cable is a substantially flat ribbon cable, the plurality of wires extending side by side substantially the entire length of the monitoring cable.

36. A monitoring cable as recited in claim 30, wherein the cable is substantially circular in

cross section.

37. A monitoring cable as recited in claim 30, wherein the plurality of individual wires are electrically insulated from each other.

38. A monitoring cable as recited in claim 30, further comprising an interface connector provided at one end of the cable and including a plurality of contact portions each connected to a respective one of the plurality of individual wires, the interface connector provided for connecting the monitoring cable to monitoring equipment.

39. A monitoring cable comprising:

a plurality of respective cables, each of the plurality of respective cables including plurality of individual wires, each respective cable having a shape, the respective shape of each respective cable being substantially the same for its entire length; and

a plurality of electrodes each electrically connected to a respective one of the plurality of individual wires and positioned at various points along each of the plurality of respective cables.

40. A monitoring cable comprising:

a plurality of respective cables, each respective cable having a shape, the respective shape of each respective cable being substantially the same for its entire length; and

a plurality of electrode connectors each electrically connected to a respective one of the plurality of individual wires and positioned at various points along each of the plurality of respective cables.

41. A monitoring cable comprising:

a plurality of respective cables, each of the plurality of respective cables including plurality of individual wires, each respective cable tapering from a first end to a distal end; and
a plurality of electrodes each electrically connected to a respective one of the plurality of individual wires and positioned at various points along each of the plurality of respective cables.

42. A monitoring cable comprising:

a plurality of respective cables, each respective cable tapering from a first end to a distal end; and

a plurality of electrode connectors each electrically connected to a respective one of the plurality of individual wires and positioned at various points along each of the plurality of respective cables.

43. A monitoring cable as recited in claim 21, wherein the shape comprises at least one of a width and diameter of the cable.

44. A monitoring cable as recited in claim 39, wherein the shape comprises at least one of a width and diameter of the cable.

45. A monitoring cable as recited in claim 40, wherein the shape comprises at least one of a width and diameter of the cable.